

AMENDMENTS TO THE CLAIMS:

This listing of claims replaces all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (Currently Amended) A system for routing a data packet ~~on~~ between external networks, comprising:

a control element for managing routing tables;  
forwarding elements, each receiving one of the routing tables from the control element, and forwarding the data packet according to ~~the~~ a received routing table and a destination address in the data packet; and  
a private network that connects the control element and the forwarding elements;  
wherein the forwarding elements alter an element of the data packet if the data packet is received from one of the external networks, and do not alter the element of the data packet if the data packet is received from the private network.

2. (Original) The system of claim 1, wherein the private network comprises a local area network.

3. (Original) The system of claim 1, wherein the forwarding elements are distributed across the private network.

4. (Currently Amended) The system of claim 1, wherein the ~~data packet includes~~  
element comprises a time-to-live counter that is decremented and altering comprises  
decrementing the time-to-live counter by one of the forwarding elements that receives the  
~~data packet directly from other routers.~~

5. (Currently Amended) The system of claim 1, wherein, for each of the external  
networks, ~~the a~~ a routing table received by ~~any of the a~~ forwarding ~~elements~~ element  
includes an interface port of the forwarding element through which ~~the remote~~ an external  
network is accessible by the forwarding element.

6. (Currently Amended) The system of claim 1, wherein, for each of the external  
networks, ~~the a~~ a routing table received by ~~any of the a~~ forwarding ~~elements~~ element  
includes information about a gateway to which ~~the~~ an external network is directly  
connected.

7. (Currently Amended) A method of routing a data packet ~~on~~ between external  
networks, comprising:

receiving, at ~~each of a plurality of a~~ forwarding ~~element~~ elements, a routing table  
from a control element via a private network;

receiving the data packet[[,]] at ~~one of the forwarding~~ element ~~elements, directly~~  
~~from one of the networks; and~~

altering an element of the data packet if the data packet is received from one of the

external networks, and not altering the element of the data packet if the data packet is received from the private network; and

forwarding the data packet according to the routing table and a destination address in the data packet.

8. (Currently Amended) The method of claim 7, wherein the element comprises further comprising decrementing a time-to-live counter, and altering comprises decrementing the time-to-live counter at the forwarding element that receives the data packet directly from the one of the networks.

9. (Currently Amended) The method of claim 7, further comprising, at the control element, modifying an interface port field for each of the external networks in the routing table before sending the routing table to ~~one of~~ the forwarding element ~~elements~~.

10. (Currently Amended) The method of claim 9, wherein ~~the~~ modifying includes specifying, indicating in the interface port field, a port of the forwarding element through which ~~the~~ an external network is accessible by the forwarding element.

11. (Currently Amended) The method of claim 7, further comprising wherein, at the control element, changing a gateway field for each of the external networks in the routing table before sending the routing table to ~~one of~~ the forwarding element ~~elements~~.

12. (Currently Amended) The method of claim 11, wherein ~~the~~ changing includes ~~indicating~~ specifying, in the gateway field, one of ~~the~~ plural forwarding elements to which ~~the~~ an external network is directly connected.

13. (Currently Amended) An article comprising ~~[[computer]]~~ a machine-readable medium that stores instructions for routing data between external networks, the instructions causing a machine associated with a forwarding element to:

receive, at the forwarding element ~~each of a plurality of forwarding elements~~, a routing table from a control element via a private network;

receive the data packet~~[[,]]~~ at ~~one of the forwarding element; elements, directly~~ from one of the networks; and

alter an element of the data packet if the data packet is received from one of the external networks, and not alter the element of the data packet if the data packet is received from the private network; and

forward the data packet according to the routing table and a destination address in the data packet.

14. (Currently Amended) The article of claim 13, ~~further comprising instructions for causing a computer to decrement~~ wherein the element comprises a time-to-live counter, and altering comprises decrementing the time-to-live counter at the forwarding element ~~that receives the data packet directly from the one of the networks.~~

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15 to 18. (Canceled)